

CLAIMS:

1. Record carrier of a writable type for recording information by writing marks in a track via a beam of radiation entering through an entrance face of the record carrier, the marks being recorded in recording units representing addressable blocks of information, the record carrier comprising
 - 5 - at least a first recording layer (40) and a second recording layer (41), the first recording layer being present at a position closer to the entrance face than the second recording layer,
 - each recording layer comprising a pre-formed recording control pattern for indicating the track, the pattern comprising physical addresses (59) having a predefined number of address bits that indicate the physical position of the physical address with respect to a starting point
 - 10 of the track, and at least one address bit of said predefined number of address bits of the physical address constituting at least one layer address bit (60) that has a value indicating the recording layer.
2. Record carrier as claimed in claim 1, wherein the at least one layer address bit
- 15 (60) corresponds to the most significant bit of the physical address.
3. Record carrier as claimed in claim 1, wherein the layer address bit has the value zero in the first recording layer.
- 20 4. Record carrier as claimed in claim 1, wherein the pre-formed recording control pattern is constituted by a pregroove (14) indicating the position of the track, the pregroove exhibiting a wobble constituted by displacements of the pregroove in a direction transverse to the longitudinal direction of the track, and the wobble exhibiting a modulation representing the physical addresses including the at least one layer address bit.
- 25 5. Record carrier as claimed in claim 4, wherein the pregroove on the first recording layer (40) extends spirally in a first direction and the pregroove on the second recording layer (41) extends spirally in a second direction opposite to the first direction for constituting a multi-part recording area (54,57) interrupted by an intermediate zone that

physically is constituted by a first intermediate part (55) located at the end of the first recording layer and a second intermediate part (56) located at the start of the second recording layer, and the layer address bit has the value one in the second recording layer.

- 5 6. Device for recording marks in a track on a record carrier (11) via a beam of radiation (24), the record carrier comprising
- at least a first recording layer (40) and a second recording layer (41), the first recording layer being present at a position closer to the entrance face than the second recording layer,
 - each recording layer comprising a pre-formed recording control pattern for indicating the
 - 10 track, the pattern comprising physical addresses having a predefined number of address bits that indicate the physical position of the physical address with respect to a starting point of the track, and at least one address bit of said predefined number of address bits of the physical address constituting at least one layer address bit (60) that has a value indicating the recording layer, and at least one address bit of said predefined number of address bits of the
 - 15 physical address constituting at least one layer address bit that has a value indicating the recording layer,
- the device comprising
- a head (22) for providing the beam,
 - recording means (27,28,29) for writing marks in the track via the beam, the marks being
 - 20 recorded in recording units representing addressable blocks of information,
 - a front-end unit (31) for generating a scanning signal (33) for detecting marks in the track, and
 - demodulation means (32) for retrieving the physical addresses including the at least one layer address bit from the pre-formed recording control pattern, and
 - 25 - a layer unit (34) for detecting a recording layer in dependence of the at least one layer address bit.

7. Device as claimed in claim 6, wherein the recording means (27,28,29) are arranged for recording the units representing addressable blocks of information including a
- 30 logical address field, the logical address field containing a logical address value based on the physical address but differing from the physical address by excluding the at least one layer address bit.

8. Device as claimed in claim 6, wherein the recording means (27,28,29) are arranged for recording the units representing addressable blocks of information including a logical address field, the logical address field containing a logical address value based on the physical address and the at least one layer address bit, in particular the logical address field
- 5 containing a copy of the predefined number of address bits including the at least one layer address bit.
9. Device as claimed in claim 6, wherein the layer unit (34) is arranged for interrupting a recording process in dependence on a deviation of an intended recording layer
- 10 value and a layer value detected from the at least one layer address bit.